

# Primary Battery Manufacturing: 2002

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## 2002 Economic Census

*Manufacturing*

Industry Series



U S C E N S U S B U R E A U

*Helping You Make Informed Decisions*

U.S. Department of Commerce  
Economics and Statistics Administration  
U.S. CENSUS BUREAU



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-- Not applicable for this report.

**Table 1. Historical Statistics for the Industry: 2002 and Earlier Years**

[Data based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). For information on confidentiality protection, sampling error, nonsampling error, and explanation of terms, see note at end of table. For meaning of abbreviations and symbols, see introductory text]

Industry and year <sup>1</sup>	Com- panies <sup>2</sup>	All estab- lish- ments <sup>3</sup>	All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expendi- tures (\$1,000)
			Number <sup>4</sup>	Payroll (\$1,000)	Number <sup>4</sup>	Hours (1,000)	Wages (\$1,000)				
335912, Primary battery manufacturing . . . . 2002..	31	42	8 413	306 678	6 553	13 220	207 928	1 691 795	1 117 276	2 816 040	85 004
2001..	N	N	9 473	367 404	7 332	13 930	239 468	1 494 583	1 226 828	2 753 644	123 565
2000..	N	N	10 178	369 874	7 859	15 493	240 954	1 699 394	1 280 972	2 925 076	158 317
1999..	N	N	8 699	331 468	7 019	13 844	225 148	1 538 459	1 203 360	2 738 935	142 978
1998..	N	N	8 786	310 014	6 692	13 623	204 412	1 460 370	1 181 521	2 634 025	116 219
1997..	35	46	9 189	296 907	7 049	13 443	194 875	1 390 993	1 018 782	2 387 867	130 193

<sup>1</sup>Statistics presented for years ending in 2 and 7 are census data. Interim census years are derived in a representative sample of manufacturing establishments canvassed in the Annual Survey of Manufactures (ASM).

<sup>2</sup>For the census, a company is defined as a business organization consisting of one establishment or more under common ownership or control.

<sup>3</sup>Includes establishments with payroll at any time during the year.

<sup>4</sup>Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

Note: The data in this table are based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain sampling errors and nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 2. **Industry Statistics for Selected States: 2002**

[Not applicable for this report]

**Table 3. Detailed Statistics by Industry: 2002**

[Data based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). For information on confidentiality protection, sampling error, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

Item	Value
<b>335912, Primary battery manufacturing</b>	
Companies <sup>1</sup> .....	number.. 31
All establishments <sup>2</sup> .....	number.. 42
Establishments with 1 to 19 employees .....	number.. 19
Establishments with 20 to 99 employees .....	number.. 5
Establishments with 100 employees or more .....	number.. 18
All employees <sup>3</sup> .....	number.. 8 413
Total compensation .....	\$1,000.. 412 058
Annual payroll .....	\$1,000.. 306 678
Total fringe benefits .....	\$1,000.. 105 380
Production workers, average for year .....	number.. 6 553
Production workers on March 12 .....	number.. 6 473
Production workers on May 12 .....	number.. 6 622
Production workers on August 12 .....	number.. 6 672
Production workers on November 12 .....	number.. 6 444
Production worker hours .....	1,000.. 13 220
Production worker wages .....	\$1,000.. 207 928
Total cost of materials .....	\$1,000.. 1 117 276
Materials, parts, containers, packaging, etc., used .....	\$1,000.. 1 081 988
Resales .....	\$1,000.. 4 051
Purchased fuels .....	\$1,000.. 2 389
Purchased electricity .....	\$1,000.. 17 082
Contract work .....	\$1,000.. 11 766
Quantity of electricity purchased for heat and power .....	1,000 kWh.. 329 675
Quantity of electricity generated less sold for heat and power .....	1,000 kWh.. S
Total value of shipments .....	\$1,000.. 2 816 040
Primary products value of shipments .....	\$1,000.. 2 720 936
Secondary products value of shipments .....	\$1,000.. 83 875
Total miscellaneous receipts .....	\$1,000.. 11 229
Value of resales .....	\$1,000.. D
Contract receipts .....	\$1,000.. D
Other miscellaneous receipts .....	\$1,000.. D
Primary products specialization ratio .....	percent.. 97
Value of primary products shipments made in all industries .....	\$1,000.. 2 781 789
Value of primary products shipments made in this industry .....	\$1,000.. 2 720 936
Value of primary products shipments made in other industries .....	\$1,000.. 60 853
Coverage ratio .....	percent.. 98
Value added .....	\$1,000.. 1 691 795
Total inventories, beginning of year .....	\$1,000.. 192 189
Finished goods inventories .....	\$1,000.. 10 037
Work-in-process inventories .....	\$1,000.. 115 676
Materials and supplies inventories .....	\$1,000.. 66 476
Total inventories, end of year .....	\$1,000.. 182 351
Finished goods inventories .....	\$1,000.. 10 495
Work-in-process inventories .....	\$1,000.. 108 249
Materials and supplies inventories .....	\$1,000.. 63 607
Gross value of depreciable assets (acquisition costs) at beginning of year .....	\$1,000.. 1 407 387
Total capital expenditures (new and used) .....	\$1,000.. 85 004
Buildings and other structures (new and used) .....	\$1,000.. 10 471
Machinery and equipment (new and used) .....	\$1,000.. 74 533
Automobiles, trucks, etc., for highway use .....	\$1,000.. 232
Computers and peripheral data processing equipment .....	\$1,000.. 2 913
All other expenditures for machinery and equipment .....	\$1,000.. 71 388
Total retirements .....	\$1,000.. 60 764
Gross value of depreciable assets at end of year .....	\$1,000.. 1 431 627
Depreciation charges during year .....	\$1,000.. 78 530
Total rental payments .....	\$1,000.. 6 018
Buildings and other structures .....	\$1,000.. 2 000
Machinery and equipment .....	\$1,000.. 4 018
Total other expenses <sup>4</sup> .....	\$1,000.. 76 669
Response coverage ratio <sup>5</sup> .....	percent.. 97
Repair and maintenance services of buildings and/or machinery <sup>4</sup> .....	\$1,000.. 22 829
Communications services <sup>4</sup> .....	\$1,000.. 2 372
Legal services <sup>4</sup> .....	\$1,000.. 3 574
Accounting, auditing, and bookkeeping services <sup>4</sup> .....	\$1,000.. D
Advertising and promotional services <sup>4</sup> .....	\$1,000.. D
Expensed computer hardware and supplies and purchased computer services <sup>4</sup> .....	\$1,000.. 1 694
Refuse removal (including hazardous waste) services <sup>4</sup> .....	\$1,000.. 3 615
Management consulting and administrative services <sup>4</sup> .....	\$1,000.. 4 011
Taxes and license fees <sup>4</sup> .....	\$1,000.. 8 741
All other expenses <sup>4</sup> .....	\$1,000.. 28 763

<sup>1</sup>For the census, a company is defined as a business organization consisting of one establishment or more under common ownership or control.

<sup>2</sup>Includes establishments with payroll at any time during the year.

<sup>3</sup>Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

<sup>4</sup>Based on Annual Survey of Manufactures (ASM) sample data.

<sup>5</sup>A response coverage ratio is derived for this item by calculating the ratio of the weighted employment (establishment data multiplied by sample weight) for those Annual Survey of Manufactures (ASM) establishments that reported to the weighted total employment for all ASM establishments classified in this industry.

Note 1: The amounts shown for other expenses reflect only those services that establishments purchase from other companies.

Note 2: The data in this table are based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain sampling errors and nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

**Table 4. Industry Statistics by Employment Size: 2002**

[Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note at end of table. For meaning of abbreviations and symbols, see introductory text]

Employment size class	E <sup>1</sup>	All establishments <sup>2</sup>	All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Number <sup>3</sup>	Payroll (\$1,000)	Number <sup>3</sup>	Hours (1,000)	Wages (\$1,000)				
335912, Primary battery manufacturing											
All establishments .....	—	42	8 413	306 678	6 553	13 220	207 928	1 691 795	1 117 276	2 816 040	85 004
Establishments with—											
1 to 4 employees .....	9	10	17	641	13	25	421	1 262	1 242	2 502	115
5 to 9 employees .....	9	3	16	620	12	25	446	1 429	1 441	2 870	134
10 to 19 employees .....	5	6	87	3 522	48	91	1 611	7 725	6 272	13 933	421
20 to 49 employees .....	9	2	b	D	D	D	D	D	D	D	D
50 to 99 employees .....	—	3	c	D	D	D	D	D	D	D	D
100 to 249 employees .....	—	5	867	29 274	655	1 269	17 837	418 741	64 920	481 899	3 654
250 to 499 employees .....	—	6	2 066	72 988	1 494	2 817	44 698	359 087	414 429	772 093	21 436
500 to 999 employees .....	—	7	5 099	191 272	4 144	8 610	137 845	883 574	615 495	1 508 056	58 000
1,000 to 2,499 employees .....	—	—	—	—	—	—	—	—	—	—	—
2,500 employees or more .....	—	—	—	—	—	—	—	—	—	—	—
Administrative records <sup>4</sup> .....	9	15	63	2 430	49	97	1 707	5 387	5 400	10 785	501

<sup>1</sup>Some payroll and sales data for small single-establishment companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate statistics for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data account for 10 percent or more of the figures shown: 1—10 to 19 percent; 2—20 to 29 percent; 3—30 to 39 percent; 4—40 to 49 percent; 5—50 to 59 percent; 6—60 to 69 percent; 7—70 to 79 percent; 8—80 to 89 percent; 9—90 percent or more.

<sup>2</sup>Includes establishments with payroll at any time during the year.

<sup>3</sup>Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

<sup>4</sup>Some payroll and sales data for small single-establishment companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate statistics for these small establishments. Data are also included in respective size classes shown.

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

**Table 5. Industry Statistics by Primary Product Class Specialization: 2002**

[Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note at end of table. For meaning of abbreviations and symbols, see introductory text]

Industry or product class code	Industry or primary product class	All establishments <sup>1</sup>	All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Number <sup>2</sup>	Payroll (\$1,000)	Number <sup>2</sup>	Hours (1,000)	Wages (\$1,000)				
335912	Primary battery manufacturing .....	42	8 413	306 678	6 553	13 220	207 928	1 691 795	1 117 276	2 816 040	85 004
3359120	Primary batteries .....	42	8 413	306 678	6 553	13 220	207 928	1 691 795	1 117 276	2 816 040	85 004

<sup>1</sup>Includes establishments with payroll at any time during the year.

<sup>2</sup>Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 6a. **Products Statistics: 2002 and 1997**

[Includes quantity and value of products of this industry produced by (1) establishments classified in this industry (primary) and (2) establishments classified in other industries (secondary). Transfers of products of this industry from one establishment of a company to another establishment of the same company (interplant transfers) are also included. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

Product code	Product	Number of companies with shipments of \$100,000 or more	Quantity of production for all purposes	Product shipments	
				Quantity	Value (\$1,000)
335912	Primary battery manufacturing .....	2002.. N 1997.. N	X X	X X	2 781 789 2 494 671
3359120	Primary batteries .....	2002.. N 1997.. N	X X	X X	2 781 789 2 494 671
33591201	Round and prismatic primary battery cells .....	2002.. N 1997.. N	X X	X X	2 462 186 2 191 191
3359120101	Alkaline manganese round and prismatic primary battery cells .....	2002.. 10 1997.. 6	X X	X X	1 392 298 1 041 360
3359120104	Zinc carbon round and prismatic primary battery cells .....	2002.. 2 1997.. 4	X X	X X	D D
3359120107	Mercuric oxide round and prismatic primary battery cells .....	2002.. — 1997.. 2	X X	X X	— D
3359120111	Lithium round and prismatic primary battery cells .....	2002.. 11 1997.. 11	X X	X X	D D
3359120114	All other round and prismatic battery cells .....	2002.. 7 1997.. 7	X X	X X	878 572 D
33591202	Button and coin primary battery cells .....	2002.. N 1997.. N	X X	X X	224 884 152 851
3359120201	Silver oxide button and coin primary battery cells .....	2002.. 3 1997.. 4	X X	X X	D 66 104
3359120204	Alkaline manganese button and coin primary battery cells .....	2002.. 1 1997.. 1	X X	X X	D D
3359120207	Zinc air button and coin primary battery cells .....	2002.. 3 1997.. 2	X X	X X	137 443 D
3359120211	Lithium button and coin primary battery cells .....	2002.. 3 1997.. 4	X X	X X	D 59 705
3359120214	All other button and coin primary battery cells .....	2002.. 1 1997.. 2	X X	X X	D D
33591203	Parts for primary batteries, excluding cases and containers .....	2002.. N 1997.. N	X X	X X	83 934 121 666
3359120301	Parts for primary batteries, excluding cases and containers .....	2002.. 7 1997.. 5	X X	X X	83 934 121 666
3359120Y	Primary batteries, nsk, total .....	2002.. N 1997.. N	X X	X X	10 785 28 963
3359120YWW	Primary batteries, nsk, for nonadministrative-record establishments .....	2002.. N 1997.. N	X X	X X	— 16 644
3359120YWY	Primary batteries, nsk, for administrative-record establishments .....	2002.. N 1997.. N	X X	X X	10 785 12 319

Note 1: For some establishments, data have been estimated from central unit values that are based on quantity-value relationships of reported data. The following symbols are used when percentage of each quantity figure estimated in this manner equals or exceeds 10 percent of published figure: p–10 to 19 percent estimated; q–20 to 29 percent estimated. If 30 percent or more is estimated, figure is replaced by S.

Note 2: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 6b. **Product Class Shipments for Selected States: 2002 and 1997**

[Not applicable for this report.]

**Table 7. Materials Consumed by Kind: 2002 and 1997**

[Includes quantity and cost of materials consumed or put into production by establishments classified only in this industry. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

Material code	Material consumed	Quantity	Delivered cost (\$1,000)
335912	Primary battery manufacturing		
00900001	Total materials .....2002..	X	1 081 988
	.....1997..	X	990 415
332000AC	Metal stampings .....2002..	X	137 714
	.....1997..	X	177 722
33200073	All other fabricated metal products (excluding forgings, castings, and metal stampings) .....2002..	X	49 711
	.....1997..	X	D
33100035	Castings, rough and semifinished .....2002..	X	D
	.....1997..	X	N
33141951	Refined unalloyed lead shapes and forms (excluding castings, forgings, and fabricated metal products) .....2002..	X	D
	.....1997..	X	-
33141955	Lead-calcium alloyed .....2002..	X	D
	.....1997..	X	-
33120016	Steel sheet and strip (including tinplate) .....2002..	X	28 628
	.....1997..	X	N
33120030	All other steel shapes and forms (excluding castings, forgings, and fabricated metal products) .....2002..	X	D
	.....1997..	X	N
33149104	Zinc and zinc-base alloy shapes and forms (excluding castings, forgings, and fabricated metal products) .....2002..	X	88 021
	.....1997..	X	N
32513105	Litharge .....2002..	X	D
	.....1997..	X	D
325000B3	Other industrial inorganic chemicals (including mercury oxide and silver oxide) .....2002..	X	D
	.....1997..	X	D
32521105	Plastics resins consumed in the form of granules, pellets, powders, liquids, etc. ....2002..	X	3 789
	.....1997..	X	15 744
32610013	Plastics products consumed in the form of sheets, rods, tubes, film, and other shapes .....2002..	X	35 509
	.....1997..	X	27 095
32610011	Fabricated plastics products (excluding gaskets) .....2002..	X	47 940
	.....1997..	X	D
32221001	Paperboard containers, boxes, and corrugated paperboard .....2002..	X	45 965
	.....1997..	X	65 721
33599101	Carbon and graphite electrodes, and other carbon and graphite products for electrical use .....2002..	X	46 871
	.....1997..	X	D
331000AA	Metal powders .....2002..	X	57 972
	.....1997..	X	N
00970099	All other materials and components, parts, containers, and supplies .....2002..	X	462 407
	.....1997..	X	500 919
00971000	Materials, ingredients, containers, and supplies, nsk .....2002..	X	29 256
	.....1997..	X	45 979

Note 1: For some establishments, data have been estimated from central unit values that are based on quantity-value relationships of reported data. The following symbols are used when percentage of each quantity figure estimated in this manner equals or exceeds 10 percent of published figure: p-10 to 19 percent estimated; q-20 to 29 percent estimated. If 30 percent or more is estimated, figure is replaced by S.

Note 2: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.